

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A method, in which a sterilizing agent is used to sterilize bottles of a temperature-sensitive plastic, especially PET bottles, which are being advanced along a conveying path periodically, wherein a peroxide aerosol [[,]] is heated to [[the]] a starting temperature of [[the]] sterilization [[, is]] and blown into [[the]] interior of the bottles [[and]] , the starting temperature being sufficient to produce a peroxide condensate film [[is]] formed on the inner wall of the bottles, and subsequently sterile air, with an activation temperature exceeding the sterilization starting temperature of the peroxide aerosol, is blown into the interior of the bottles, until the aerosol condensate has been activated and evaporated, after which residues of peroxide are expelled from the interior of the bottles by the renewed blowing in of sterile air.

2. (Original) The method of claim 1, wherein the peroxide is fogged into an aerosol at ambient temperature and heated to the starting temperature of the sterilization on the way to the interior of the bottles.

3. (Previously Presented) The method of claim 1, wherein the peroxide aerosol, before it is introduced into the bottles, is heated to a temperature of about 60° to 90°C and preferably of about 70° to 80°C as the starting temperature for the sterilization.

4. (Previously Presented) The method of claim 1, wherein the peroxide aerosol, before it is blown into the bottles, is introduced into flowing sterile air, which has been heated to an activation temperature and heated by the latter to the sterilization starting temperature on the way to the interior of the bottles.

5. (Previously Presented) The method of claim 1, wherein the peroxide aerosol and the sterile air are kept separate until they enter the interior of the bottles.

6. (Previously Presented) The method of claim 1, wherein the introduction of peroxide aerosol into the interior of the bottles is carried out in at least two separate, consecutive steps.

7. (Currently Amended) The method of claim 1, wherein, following the blowing in of peroxide aerosol, at least one pause in the action, corresponding to

at least one conveying cycle advance of the bottles along the conveying path, precedes the blowing of sterile air, heated to the activation temperature, into the interior of the bottles.

8. (Currently Amended) The method of claim 1, wherein sterile air is blown in in at least two separate steps, corresponding in each case to one conveying cycle advance of the bottles along the conveying path.

9. (Previously Presented) The method of claim 1, wherein the sterile air is heated to an activation temperature of about 90° to 120°C and preferably of about 110°C.

10. (Previously Presented) The method of claim 1, wherein, after sterile air heated to the activation temperature has been blown in, sterile air, which has been heated to a lower temperature, is blown in in subsequent, separate processes.

12. (Previously Presented) The method of claim 1, wherein the sterile air, which has been heated to the activation temperature, is blown at the rate of about 25 to 30 m/s and preferably of about 28 m/s into the interior of the bottles.

13. (Previously Presented) The method of claim 1, wherein the sterile air is blown in at a lower temperature with a flow rate of about 70 to 90 m/s and preferably of about 80 m/s into the interior of the bottles.

14. (Previously Presented) The method of claim 1, wherein sterile air is blown in over a period of 1 to 3 seconds and preferably of about 2 seconds.

15. (Previously Presented) The method of claim 1, wherein about 0.15 ml of peroxide per 100 cm² of interior surface of the bottles is introduced into the latter.

16. (New) A method for sterilizing bottles formed of a temperature-sensitive plastic, comprising:

introducing peroxide aerosol into interiors of the bottles at a starting temperature sufficient to produce a peroxide condensate film on interiors of the bottles;

introducing sterile air into the bottles at an activation temperature of about 90° to 120°C, exceeding the sterilization starting temperature, and sufficient to activate and evaporate the peroxide condensate film on the interiors of the bottles until the peroxide condensate film has evaporated; and

introducing further amounts of sterile air into the interiors of the bottles sufficient to expel residues of peroxide from the interiors of the bottles.

17. (New) The method of claim 16 wherein the bottles are moved in periodic advancements along a conveying path between positions whereat the introduction the peroxide aerosol heated to the starting temperature is done, the introduction of the sterile air into the bottles at the activation temperature is done, and the introduction of the sterile air into the bottles to expel residues of peroxide from the interiors of the bottles is done.

18. (New) The method of claim 17 wherein the introduction of the peroxide aerosol into the interior of the bottles is carried out in at least two separate periodic advancements.

19. (New) The method of claim 18 wherein, following the introduction of the peroxide aerosol in at least two separate periodic advancements, at least one pause corresponding to a periodic advancement is executed before a next periodic advancement following which the introduction of the sterile air into the bottles at the activation temperature is done.

20. (New) The method of claim 16 wherein, following the introduction of the peroxide aerosol, at least one pause corresponding to a periodic advancement is executed before a next periodic advancement following which the introduction of the sterile air into the bottles at the activation temperature is done.

21. (New) The method of claim 16 wherein peroxide is fogged into the peroxide aerosol at ambient temperature and heated to the starting temperature of the sterilization on way to the interior of the bottles.

22. (New) The method of claim 21 wherein, the peroxide aerosol, before it is introduced into the bottles, is heated to the starting temperature of about 60° to 90°C.

23. (New) The method of claim 23 wherein, the peroxide aerosol, before it is introduced into the bottles, is heated to the starting temperature of about 70° to 80°C.

24. (New) The method of claim 21 wherein, the peroxide aerosol, before it is introduced into the bottles, is heated to the starting temperature by introduction into flowing sterile air which has been heated to the activation temperature.

25. (New) The method of claim 16, wherein the sterile air is heated to the activation temperature of about 110°C.

27. (New) The method of claim 16 wherein the sterile air is introduced in at least two separate steps to expel peroxide residue.

28. (New) The method of claim 16, wherein, the sterile air is introduced in two steps and is heated to the activation temperature in a first step of the two steps and is heated to a lower temperature in a second step of the two steps.

29. (New) The method of claim 28, wherein the sterile air, heated to the activation temperature, is introduced at the rate of about 25 to 30 m/s

30. (New) The method of claim 29, wherein the sterile air is heated to the activation temperature of about 110°C.

31. (New) The method of claim 28, wherein the sterile air heated to the lower temperature is introduced at a rate of about 70 to 90 m/s.